

## CLAIMS

- 1** A device (**Fig. 8**) that is used to transfer the surgical treatment plan which is designed from the Simplant software based on a dentascan of the patient, to the surgical field whereby the device guides the surgeon as to the parameters of the Caldwell-Luc osteotomy as designed with the information provided from the Dentascan and Simplant.
- 2** This device is to be fabricated based on the width, height and depth of the osteotomy as dictated by the outline of the sinus area to be entered and elevated.
- 3** The device is to be used during sinus elevation surgery by being placed over the alveolar ridge after reflection of the overlying mucosa (**Fig. 3B**), and the Caldwell-Luc osteotomy is performed utilizing the device to obtain the proper dimensions and thickness of the osteotomy in order to penetrate the lateral wall of the maxilla.
- 4** The device is to be used in conjunction with a surgical bur (**Fig. 4**) that has a depth guide which rests on the ledge of the guide in order to maintain a standard depth of 10 mm from the edge of the guide to the point of penetration of the sinus (**Fig. 5**).
- 5** The surgical bur can have an alternate depth guide which allows it to maintain a depth of 5 mm from the edge of the guide to the point of penetration of the sinus. This alternate size is to be used where the sinus wall is thin and 10 mm depth is not necessary in the guide.

- 6 The bur is to create the osteotomy by having the depth guide rest on the ledge of the surgical guide as it travels along the outline of the Caldwell-Luc osteotomy as determined by the guide (**Fig. 5**).
- 7 The device and accompanying bur are to be used to create the Caldwell-Luc osteotomy and penetrate the lateral wall of the sinus (**Fig.7**) so the surgeon can then elevate the osteotomy and underlying Schneiderian membrane in order to place a bone graft in the sinus.

10

## 15 ABSTRACT OF THE INVENTION

The present invention discloses a surgical guide and accompanying depth bur with a method for its use during sinus elevation surgery utilizing the Caldwell-Luc Osteotomy procedure. The surgical guide of the present invention provides accurate transfer of the parameters of the surgical osteotomy to be performed during sinus elevation surgery. It bridges the gap between the precise information obtained from the Dentascanner and the surgical field on which this surgical plan must be placed. This is

accomplished by the use of the surgical guide which is constructed based on the information in the Dentascan and the treatment plan prepared utilizing Simplant.

5

10

15